



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

eh

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/195,533 11/18/98 NIELSEN

H 81208-246275

EXAMINER

MM22/0303

STEVEN W SMYRSKI  
PILLSBURY MADISON & SUTRO  
725 SOUTH FIGUEROA  
SUITE 1200  
LOS ANGELES CA 90017-5443

ROSENBERGER, R

ART UNIT

PAPER NUMBER

2877

DATE MAILED:

03/03/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

69/195533

Applicant(s)

Nielson et al

Examiner

RA Rosenberger

Group Art Unit

2877

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1 - 17, 24 - 31, 37 - 50, 60 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1 - 17, 24 - 31, 37 - 50, 60 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☒ Notice of Reference(s) Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

1. There are two claims numbered "49", and no claim numbered "50"; see 37 CFR 1.75(f). The second claim numbered "49" has been renumbered as "50". It is noted that the renumbering set forth in the previous office action is not correct; it was not appreciated at that time that there were two claims numbered "49", and thus claims 51-60 should not have been renumbered as 50-59. The correct numbering of the claims of the claims, as filed, is thus 1-60; the only renumbering is to renumber the second claim "49" as claim "50". The error is regretted.

2. The election without traverse of group I, set forth in the restriction requirement as claims 1-17, 24-31, and 37-50 (and properly claims 1-27, 24-31 and 37-51; see above) is noted. It is noted that claim 51, which properly belongs to this group, has been cancelled, perhaps by mistake resulting from the confusion noted above as to the proper numbering of the claims.

3. The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 60 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 60 is dependent from cancelled claim 59 and is thus incomplete. It is noted that claim 60 properly belongs in a non-elected group of claims.

5. The specification is objected to under 5 U.S.C. 112, first paragraph as not setting for the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains to make and use the same.

There is not clear disclosure relating to the "dark field collection arrangement". There is no disclosure relating any structure or arrangement which would produce this. There is, in figures 1 and 2, an element 116, which may be a mirror for collecting scattered light, but there appears to be no mention of this element in the body of the specification identifying its structure or purpose, or setting forth what other elements may be needed which are not set forth.

Here also appears to be a lack of disclosure relating to the Normarski DIC detector. There is disclosed a Normarski prism (106) in both figures 1 and 2, but there is no disclosure relating to how and where the rest of the system may be. IN figure 1 the beamsplitter 105 may be intended to break off a part of the beam to direct it to the rest of the system, but the specification does not appear to state that this is the function of that beam splitter; indeed, the specification appear to give not

function to beamsplitter 105 at all. Further, there appears to be no such element at all in the embodiment of figure 2 which can be assumed to be a part of a Normarski system; in figure 2 the beam splitter 105 is used to direct light to the "optical lever" detector 117.

6. Claims 4, 8-10, 42, 43, 45, and 46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. See above.

7. Claims 24-31 and 48-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims contain results but do not contain the structure of method steps to obtain the results. Claim 24, for example, claims that the "means" detects "surface height variations of less than approximately 1000 nanometers and surface contours over areas larger than particles and scratches", but the claimed structure to accomplish this is not set forth.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 6, 11, 13, 16, 17, 37, 41, 44, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosenfeld et al (US 3,885,875).

Rosenfeld et al shows a light generating device (10) and an optical arrangement (13, 17) for receiving light from the light generating means (10) and imparting light (20) toward a specimen (21). There is a retro beam diversion element (16) which diverts the retro beam from the optical element arrangement and a sensing device (26) for receiving and sensing retro beam position of the diverted beam. The sensing device clearly has dimensions and an orientation to

“favourably receive” the retro beam based upon a predetermined expected diversion; without such “favorable” structure the device would be not be useful.

The diversion element (16) is a beam splitter.

The detector (26) can be an array of two detectors; see figure 4. Each of the plurality of detectors has a preamp (32, 33).

The light generating device (10) can be a laser (column 3, line 62).

The light(20 is directed substantially normally onto the specimen (21) (column 4, line 47).

11. Claims 2-5, 7, 12, 14-15, 24-31, 38-40, and 48-50 rejected under 35 U.S.C. 103(a) as being unpatentable over Vaez-Iravani (US 5,798,829) in view of Rosenfeld et al (US 3,885,875).

I t would have been obvious to replace the tilt-measuring system of Vaez-Iravani with other known tilt measuring arrangements, such as that of Rosenfeld et al. Vaez-Iravani shows that it is known to place an optical isolator in a system generally as claimed. Rosenfeld et al teaches that the precision of measurement can be adjusted (column 4, lines 59- 63), choosing an appropriate degree of accuracy would be within the skill of those in the art.

12. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 308-7722.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

*Frank G. Ford*  
*for*  
R. A. Rosenberger  
25 February 2000